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Foreign Trade of Japan Since the Armistice

By FRANK R. RUTTER

Trade Commissioner, Bureau of Foreign and Domestic Commerce

NO year in the history of modern Japanese trade has witnessed more striking changes than 1920. At the beginning of the year, the post-Armistice boom in exports had just reached its peak, while in March imports reached their maximum. During the course of the year foreign trade has collapsed. The imports in December, 1920, were valued at barely one-fourth the record for March, 1920, and the exports, 14,000,000 yen less, were only one-fourth the record for December, 1919. It would be necessary to go back some years to find an equally small trade movement—to August, 1917, for imports, and to January, 1916, for exports. It must be borne in mind also that prices ranged much lower then, so that the values for December, 1920, really represent a much smaller volume of trade than at any time since the beginning of the war.

When the year 1920 opened, imports into Japan were still at their height, while the peak in exports had been passed. As a result there was an almost constant excess of imports throughout the year. In only three months (August, September and October) a small surplus of exports was recorded. The excess of imports for the year amounted to 392,000,000 yen. Strange to say, there was also an excess importation of gold and silver amounting to almost the identical figure—390,000,000 yen.

This heavy movement, directly contrary to the natural course of trade, is difficult to explain; for the large sums paid as freight to Japanese shipping companies are not enough to offset the adverse balance of trade. The urgent need of funds by the banks and business

houses, and also by the Government for the many projects of financial relief, was undoubtedly one of the main reasons for the big imports of specie. The Government and the Bank of Japan had on deposit in foreign countries large sums of money at the beginning of the year. At the end of November, 1920, the stock of gold held in foreign countries was 270,000,000 yen less than one year before, while the stock held in Japan was 400,000,000 yen more. When exchange was against Japan in the early months of 1920, the law prohibited the exportation of gold; but when the crisis came, the urgent need of funds compelled the banks and business houses to draw upon every available source for money, and to postpone as long as possible the payment of obligations that had been incurred. This led to a sharp rise in exchange even while the balance of trade was against Japan, and the rise in exchange in turn made profitable the import of gold. Most of the gold naturally came from the United States, but there were also some large receipts from China.

PRICE CHANGES

In tracing the changes in the volume of Japanese trade, allowance must be made for fluctuations in price and for seasonal variations. Both of these factors have a peculiar importance in studying Japanese trade. The advance in export values came much later in Japan than in the United States, but was much greater when it came. Seasonal variations are also especially pronounced because of the few articles that make up the bulk of the imports and exports.

The variations in price are shown in Table I, together with an average for United States exports¹:

It will be noted that Japanese staple exports were slow in responding to the world-wide tendency toward higher

TABLE I. VARIATIONS IN PRICES OF IMPORTS AND EXPORTS OF JAPAN, 1917-1920
Average 1913 = 100

	1917	1918	1919				1920			
			Jan.- Mar.	Apr.- June	July- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- June	July- Sept.	Oct.
All Imports.....	159	215	222		241		257		256	
Raw Cotton...	135	217	231		258		271	267	253	
Iron and Steel...	287	432	394		287		258	246	250	
Machinery....	157	244	306		290		303	263	290	
Rice.....	87	145	206		363		423	303	225	
All Exports.....	145	185	198	212	252	300	344	302	252	220
Raw Silk.....	147	163	153	188	249	296	394	265	162	126
Silk Fabrics...	140	174	182	193	243	322	383	309	213	194
Cotton Yarn...	156	248	254	309	400	517	520	471	291	195
Cotton Fabrics	145	196	228	247	263	340	355	352	334	315
United States Exports ^a	204		221		229					

^a For United States, average of four years ending June 30, 1914 = 100. Computed from the average for each class (great group) as determined by W. A. Berridge: "An Analysis of the Exports of Merchandise from the United States," *Review of Economic Statistics*, October, 1919, p. 312. In his average for all exports, each class is weighted according to the value of the selected articles falling in that group in 1911-1914. In the figure given in the table the weighting is according to the total exports of each class. Figures for the year ending June 30, 1920, have been computed on the same basis.

¹ The usual method has been used to eliminate the effect of changes in price in determining the fluctuations in trade. A compilation was made of a considerable number of important commodities that represented from 64 to 79 per cent of the total imports, and from 63 to 79 per cent of the total exports. From the quantity of each article a value was computed on the basis of the average import or export price in 1913. This compilation was made for each year, and also for shorter periods of 1919 and 1920—six-month periods in the case of imports, and quarters in the case of exports. The sharp variations in the prices of exports made it desirable to use a short term.

Comparison of the value returned and the value computed on the basis of pre-war prices

measures the relative rise (or fall) in price since 1913. The selected articles were grouped into various classes (natural foodstuffs, prepared foodstuffs, raw materials, partly manufactured goods and manufactures ready for consumption), and an average was computed for each class. It was assumed that the price of each of these classes varied in the same proportion as that of the selected articles belonging to the same class. By applying the relative price to the reported total for each of the five classes a value based on 1913 prices was obtained. For miscellaneous articles, not included in any of the five classes, the combined percentage of increase was applied.

Raw silk is of especially high value and has been subject to violent fluctuations in price. For this reason, in the case of exports, partly

prices. In 1917, a comparison of the values returned in the official statistics with those calculated on the basis of 1913 prices shows an advance of only 45 per cent. The following year the official values were 85 per cent above the pre-war level. Up to that time the advance was much less marked than that disclosed by a similar comparison of the United States export statistics. After the Armistice, however, the rise in Japanese export prices was very rapid. In the fourth quarter of 1919, the average was three times as high as the 1913 level; and in the first quarter of 1920, almost three and one-half times as high (344 as compared with 100 for 1913).

Then came a drop as rapid as the rise. The average export value for the second quarter was 302, for the third quarter, 252, and for October, 220. Naturally estimates of this kind for so short a period as one month, or even three months, can not be regarded as precise, but the movement is amply confirmed by current price quotations.

The export price of raw silk, and still more that of cotton yarn, went far higher than the average for all exports. Cotton yarn brought five times as much in the first quarter of 1920 as in the year 1913. It follows that the post-war advance recorded for exports is due mainly to the high prices for the four big items. The average for the numerous articles that make up the other half of the export trade of Japan shows a much smaller increase.

There was also a considerable increase in import prices after the Armistice. The import price in 1918, how-

ever, had already advanced much more than the export price, and the highest point reached was much below the export price for the corresponding period. The advance in import prices was therefore relatively moderate, and the latest statistics show little drop in price.

VOLUME OF TRADE

The change in import prices, consequently, does not affect materially the apparent increase in the imports of Japan. The figures on the 1913 basis are somewhat lower than those showing the prices as returned, but the general direction is little altered. In the case of exports, however, the situation is just the reverse. The great advance in exports from quarter to quarter in 1919, which brings the value returned for the last two quarters much above the corresponding figures for the year before, largely disappears when the value is reduced to the basis of 1913 prices. There was an upward movement, but it was not sufficient to bring the total up to the 1918 level.

Tabulation has been made of the imports and exports for the last three years by quarters in Table II. The third quarter of 1918 has been taken as a basis, and the returns for each of the other quarters during the three-year period are stated in the form of index numbers.¹

SEASONAL VARIATIONS

Because of the few commodities that make up the bulk of Japanese import

¹ The values as returned in the official statistics have been used and also the computed value on the basis of 1913 prices. In some cases it was necessary to interpolate the average prices to be used for the conversion. For 1918 no direct determination of the relative price was made for portions of the year and for the later years, in the case of imports, the direct determination was made by half-year periods. For purposes of comparison the trade movement in the United States is given, but only on the basis of declared values—not on the basis of pre-war prices.

manufactured goods were divided into two groups, raw silk and other articles, for each of which separate computation was made. For similar reasons, although not so striking as in the case of exported silk, imported cotton, iron and steel, and machinery were separated from the classes into which they fall.

TABLE II. FOREIGN TRADE OF JAPAN AND OF THE UNITED STATES SINCE THE ARMISTICE, ON BASIS OF JULY-SEPTEMBER, 1918 TRADE

July-September, 1918 = 100

	Imports			Exports		
	1918	1919	1920	1918	1919	1920
Japan, values as returned:						
1st quarter.....	101.3	124.1	208.5	81.2	77.5	111.5
2nd quarter.....	116.3	147.7	210.6	102.5	92.2	121.7
3rd quarter.....	100	138.9	103.1	100	112.7	99.0
4th quarter.....	114.5	152.3	79.0	118.7	148.0	63.1
Japan, at 1913 prices:						
1st quarter.....	102.8	121.8	177.1	86.2	73.5	60.8
2nd quarter.....	117.3	143.6	174.9	105.4	81.5	75.8
3rd quarter.....	100	129.6	84.4	100	83.8	73.8
4th quarter.....	113.4	134.1	64.8	115.0	92.7	54.8
United States, values as returned:						
1st quarter.....	88.0	92.1	188.5	90.8	114.3	138.1
2nd quarter.....	110.9	115.2	190.5	96.9	141.9	130
3rd quarter.....	100	139.8	181.9	100	114.3	115.8
4th quarter.....	91.2	155.5	118.5	100.4	129.6	135.6

and export trade, seasonal variations are very important. Exports come mainly in the second half year, the figure for the fourth quarter being considerably higher than for any of the others. In 1913, 22 per cent of the exports came in the first quarter, 23 per cent in the second, 26 per cent in the third and 29 per cent in the fourth. About the same ratio held good in the three preceding years. On the import side, the heaviest movement comes in the first half of the year. In 1913, 22 per cent of the imports came in the third quarter, 23 per cent in the fourth quarter, 26 per cent in the first quarter and 29 per cent in the second quarter.

The fact that the heaviest imports come when the exports are lightest, and the heaviest exports come when the imports are lightest, exaggerates the situation. Normally, an excess of

imports may be expected during the first half of each year, and an excess of exports during the second half. The preponderance of silk in the export trade and of raw cotton in the import trade goes far to explain the time of heaviest shipments. If these two commodities are omitted, the volume of trade is distributed through the year with reasonable uniformity.

To eliminate the factor of seasonal shipments, compilation has been made in Table III of the import and export figures for the period under review, expressed on the basis of the corresponding quarters of 1913. The effect is to make the fluctuations less marked, especially when based on the pre-war price level. There is a steady upward movement of imports from the beginning of 1918 to the beginning of 1920, when a sharp fall began. Exports, on the other hand, show in the main a

TABLE III. FOREIGN TRADE OF JAPAN AND OF THE UNITED STATES, WITH ALLOWANCE FOR SEASONAL VARIATIONS, 1918-1920

Corresponding quarter of 1913 = 100

	Imports			Exports		
	1918	1919	1920	1918	1919	1920
Japan, values as returned:						
1st quarter.....	205	251	421	286	272	391
2nd quarter.....	209	265	378	342	308	407
3rd quarter.....	244	339	252	292	329	289
4th quarter.....	266	354	184	319	399	170
Japan, at 1913 prices:						
1st quarter.....	96	114	166	161	137	114
2nd quarter.....	98	120	146	188	145	135
3rd quarter.....	113	147	96	156	131	115
4th quarter.....	122	145	70	165	133	77
United States, values as returned:						
1st quarter.....	146	153	313	237	298	360
2nd quarter.....	210	218	360	275	403	369
3rd quarter.....	173	242	315	279	319	323
4th quarter.....	152	260	198	212	273	286

continuous decline from the second quarter of 1918 to the end of 1920.

IMPORTANCE OF STAPLES

Roughly speaking, three commodities make up one-half of the import trade, and four commodities one-half of the export trade. The relative importance of these big staples has remained fairly constant, but among themselves there has been considerable change. The effect of the war was to increase materially the importation of iron and steel, which in 1918 constituted 17 per cent of the total as compared with 7 per cent in 1913. But in 1920 its share fell to 11 per cent. The slight relative decrease in the proportion of raw cotton and machinery during the war has been made up since the Armistice.

On the export side a relative increase in the amount of silk fabrics as com-

pared with raw silk, and of cotton fabrics as compared with cotton yarn, is conspicuous. This tendency has continued since the Armistice. Before the war habutae represented well over 90 per cent of all the silk fabrics exported. Recently, there has been a big gain in the export of crape which, in 1918, reached a value more than one-fourth as high as the value of the habutae exported.

There are many minor articles in the export trade of considerable importance. These reflect the recent trade changes more clearly than the big staples. During the war a big export trade was built up in beans, paper and woollens, which rapidly declined after the Armistice. Other articles, already important, gained largely during the war. Among these, pottery and toys are prominent because so far they have maintained their increase. The same

is true of glass, but to a less degree. Coal, knit goods, matches and hat braids show a big increase in value, but there was no corresponding increase in quantity. Camphor, a natural monopoly of Japan, has shown a material increase in value in the face of a large decrease in quantity. With the greater scarcity, prices have been raised more than proportionately. Shell buttons are still exported to twice the quantity and three times the value recorded in 1913, but the quantity is 40 per cent less than in 1918, although the value is larger. In several of these lines the gain was made while central Europe, formerly the chief exporter, was closed to commerce.

Before the war, copper was regularly exported in considerable amounts from Japan. During the war, the exports increased in value but not in quantity. Increased costs of production have changed Japan, in 1920, from an exporting to an importing country. The imports were twice as large as the exports.

DIRECTION OF TRADE

Raw silk and silk fabrics exported from Japan go mainly to the United States and are exchanged for raw cotton, semi-manufactured iron and steel, and machinery. During the war the proportion of silk and silk goods taken by the United States increased materially, while on the import side a larger share of the raw cotton was imported from the United States, and the bulk of the iron and steel, and machinery. Since the Armistice, imports from the United States have continued to increase, notwithstanding the orders placed in Europe.

The exports to Asia consist in large part of cotton yarn and cotton fabrics. The sales to India that became important during the war fell off largely

in 1919, but revived in 1920. China, however, remains the principal market for cotton yarn and fabrics. The decline in the purchases there has had a serious effect on the spinning and weaving industries of Japan, and through them on the general industrial situation.

It is not certain how large a part the boycott in China has actually played. According to the Japanese returns the exports of cotton yarn to China had approximately the same value during the three years, but a much smaller quantity in 1919 and 1920. The value of cotton fabrics shows a marked increase in 1919 and 1920 (especially in the first half), but the quantity shows little change. The decline in the quantity of cotton yarn exported to China, and the absence of any material increase in the quantity of cloth may or may not be due to the boycott. The natural effect of the boycott, more or less local perhaps, was to restrain importers from placing new contracts in Japan. If it did not prevent the importation of Japanese goods, it may well have been instrumental in preventing further expansion of the trade.

The fall in the price of silver during 1920 has probably been at least equally effective in limiting the purchases of Japanese goods in China. The value of the Chinese (Yuan) dollar was fixed by the Director of the Mint at \$1.02 on April 1, 1920, and at 59 cents on January 1, 1921. Since these values are based on quotations covering the preceding quarter, the purchasing power of Chinese money, when measured in gold, fell more than 40 per cent during the last nine months of 1920. Such a decline must unquestionably have lessened the demand for cotton cloth and other goods imported from a gold standard country like Japan.

PREPONDERANCE OF IMPORTS

Perhaps the most conspicuous change in Japanese trade since the Armistice is the shift in the relative importance of exports and imports. During the war exports were dominant; since the war, imports. The big export figures were piled up while there was an insatiable demand in foreign markets. When it was seen that prices, except for a few competitive goods, did not drop immediately upon the end of hostilities, an after-the-war boom developed that carried the values, but not the quantities, far above previous records. The upward tendency lasted only through 1919. Its basis was inflated values; it needed an insistent foreign demand. With the diminished purchasing power of the United States and the fall in the value of silver in China, the demand for silk and for cotton manufactures, the two great export staples, fell off disastrously. Contracts that had been placed for future deliveries well up to the productive capacity of the country for months to come, could not be carried out by the buyers without forcing many into bankruptcy, and to avoid this had to be cancelled on easy terms.

Much more marked was the steady rise of imports that began even before the Armistice and continued through 1919 and the first quarter of 1920—and the returned value was even higher for the second quarter, but not the value adjusted to pre-war prices nor the value adjusted for seasonal variations. The declared value of imports was then more than twice as high as two years before.

The difficulty of obtaining adequate supplies of foreign goods during the war left Japan greatly under-stocked. When the Armistice was signed orders were placed at once for prompt deliv-

ery. Early shipments brought so much profit to the importers that further orders were placed, in many cases without adequate consideration of the real extent of the home demand.

The orders proved excessive. With the collapse of the boom, imported goods could not be resold except at a loss. Goods stored in customs warehouses, representing only a part of the imports that could not be digested, showed on December 31, 1919, a value twice as high as one year before, while on June 30, 1920, the value was two and one-half times, and on September 30, over three times, as high. Undigested imports, estimated at enough for a full year's supply in many lines, effectively prevented the placing of new orders.

Japan is closely affected by world conditions and world tendencies. The changes in the amount of its import and export trade paralleled those in the trade of the United States during the war and less closely after the war. The parallel appears most clearly when the comparison is based on the value for the corresponding quarter of 1913. But in Japan, perhaps because of the greater preponderance of a few staples, the fluctuations, both upwards and downwards, have been more extreme. The peak for imports was reached first in Japan; for exports, first in the United States.

CONCLUSION

To sum up, the post-war trade of Japan has been characterized by (1) extreme variations in the level of prices, (2) extreme fluctuations in the volume and still more in the value of imports and exports, (3) a preponderance of imports over exports, especially marked in 1920, and (4) a severe trade depression, due largely to the collapse

of the foreign demand for the great export staples.

Just as the Japanese exporters profited to a peculiar degree from the advancing prices of 1919, they have suffered to a peculiar degree from the 1920 decline. The large part that silk and cotton and their manufactures play in Japanese exports has exaggerated the injurious effects of the fall in price. There has been a sharp loss in value, unlooked for and not pro-

vided for, with a greatly lessened demand for silk and silk goods in the United States and Europe and for cotton goods in Asia. Foreign trade is to an unusual degree fundamental in Japan and affects vitally the whole economic life of the nation. To a recovery, industrial or commercial, from the present depression, the revival of a strong and stable foreign demand for Japanese goods is essential.